

REMARKS

This Amendment is submitted preliminary to the issuance of an Office Action in the present application and in response to the Official Action of October 30, 2008.

Claims 1-20 are pending in the application. Claims 1 and 11 have been amended, for the sake of clarity, to recite that the event-relevant information from the controller that was written to the database in the "writing" step includes the sensitive event-relevant information that was recited as not being transmitted in the "transmitting" step, as is supported in paragraph [0024]. Also, the amended claims more clearly recites that the "alarm event" that caused the "transmitting" is the same one to which "the event-relevant information written to the database" is relevant, as is supported in paragraphs [0025] and [0028]. Claims 15 and 20 have been amended to correct an obvious typographical error.

Claims 21 and 22 have been added to assure that the invention enjoys the full scope of protection to which it is entitled. Claims 21 and 22 are supported in paragraph [0028]. No claims have been cancelled. No amendment of the specification has been made. The fee of \$104.00 for submitting two claims in excess of twenty is enclosed.

Claims 1 and 11 stand finally are rejected under 35 U.S.C. §112, second paragraph, as indefinite for allegedly lacking support for the "sensitive event-relevant information" recited in these claims.

Claims 1-4, and 7-20 stand rejected under 35 U.S.C. §102(e) as being anticipated by published U.S. Pat. Appl. No. 2008/0186166 of Zhou et al.

Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Zhou et al. in view of Qi et al. (US 6892064).

Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Zhou et al. in view of published U.S. Pat. Appln. No 2007/0208697 of Subramaniam et al.

CLAIM REJECTIONS – 35 U.S.C. §112, SECOND PARAGRAPH

The rejection under 35 U.S.C. §112, second paragraph, as filed, is hereby respectfully traversed.

Applicant's invention is directed to solving the problem described in paragraphs [0003] to [0008] of the present application. In accordance with applicant's disclosed invention, when an alarm event occurs in a remotely-operated industrial plant, information relevant to that alarm event, particularly sensitive event-relevant information, is stored in a database. The roving technicians who remotely supervise highly-automated industrial plants need immediate access to that sensitive information to be able to prevent machine failures from causing costly damage and loss of productivity in the remotely-operated plants when these alerts occur:

The displays that are provided by controllers to an operator inside an industrial plant can also be displayed remotely. [0003] However, the more information that is sent, the greater the need for security. [0006]

The constantly increasing need for information requires that machines and systems used in industrial production be capable of sending e-mail messages when certain events occur. [0006] As is well known, e-mails are advantageous because they can be sent to a wide variety of devices, and can include a wide variety of conventional display media.

However, the PKI encryption that is conventionally used for e-mails cannot be used provide that industrial information that must be encrypted to secure it -- whether because the company protects it as confidential business data or because the company protects it as confidential technical data, both being well-known as types of sensitive information that are relevant to an industrial alarm event. In particular, PKI is not suitable to provide this industrially sensitive event-relevant information to the roving technicians when they are not "at their company's location." [0007]

Thus, the conventionally-used PKI encryption is not suitable for use by these roving technicians. E-mails can only be used to inform them that an alarm event has occurred, such as a component failure. The PKI-encrypted e-mails cannot be used to

provide that "sensitive" event-relevant information, information that is "sensitive" because it requires some additional security measures, such as PKI encryption, for example. It cannot be used in supervising the operation and repair of industrial plants. Applicant's invention provides that sensitive information to the roving technician using "a cryptographically protected communication protocol based on an Internet browser" instead of providing it to them in an e-mail. **[0024] - [0025]**

Withdrawal of the rejection of the claims 1 and 11 under 35 U.S.C. §112, second paragraph is thus respectfully requested.

PROSPECTIVE DOUBLE PATENTING

The prospective double patenting rejection of claim 15 as amended for being duplicative of claim 12 as amended, is hereby respectfully traversed. A typographical error in claim 15 has been corrected, making claim 15 now dependent on claim 11, rather than claim 1. Similarly, claim 20 has been amended to be dependent on claim 1, to distinguish it from claim 17.

CLAIM REJECTION - 35 U.S.C. §102(e)

The rejection of claims 1-4, and 7-20, as filed, under 35 U.S.C. §102(e) as anticipated by Zhou et al. is hereby respectfully traversed.

In accordance with applicant's disclosed invention, when an alarm event occurs in a remotely-operated/maintained industrial plant, information relevant to that alarm event, confidential business and/or technical information that must be secured by encryption or similar security means, is stored in a database along with other event-relevant information. This confidential information must be excluded from the alarm message sent to the roving technicians because the e-mail encryption that is conventionally available is not suitable for messages to roving technicians.

However, roving technicians who remotely supervise/maintain highly-automated industrial plants still need immediate access to that confidential

information, to be able to prevent machine failures from causing costly damage and loss of productivity in the remotely-operated plants when such alarm events occur. The exclusion of that confidential ("sensitive") event-relevant information from the alarm event messages that are recited in these claims, as filed, as "not containing the sensitive event-relevant information", distinguishes the alarm message recited in these claims from the messages disclosed by Zhou. ,

It is well-known in the art, and reflected in the information disclosed in connection with this application, that the use of industrial robots, automated machine tools and other automated processing equipment is increasing the demand for remote access to information about their operation. This increases the importance of preventing "unauthorized access by third parties" has also increased. [0025] To take advantage of the cost savings made possible by automation, the technicians need to be able to travel freely. However, these roving technicians still need immediate access to the information that used to be provided to the machine operators, who used to be located on premises with the machines, instead of roving, when alarm events arise.

It is very advantageous to be able to use whatever conventional portable communications gear those roving technicians already carry, such as PDAs and cell phones, and any of the available notification formats: voicemail, SMS and e-mail, to assure prompt response by a technician who is suitably qualified to diagnose and correct a particular out-of-limit condition -- where ever that particular technician may be when it occurs -- as noted in paragraph [0013]. However, it will be immediately apparent to one skilled in the art that these conventional communication means do not prevent outsiders from monitoring and/or modifying the information needed by these roving technician.

In general, Zhou does not disclose what information is or is not included in the alert messages for most of the applications discussed by therein. Zhou discloses that, unlike alerts generated by applicant's automated machinery control systems, an irrigation system alert may include both position data and the parameter data that triggered the alert message. Zhou [0304] In contrast, unlike the location and

parameters of component failures that generate alerts in remote-operated factories, such as petrochemical refineries and steel mills, the wilting of an olive tree is not a potentially embarrassing, million-dollar problem.

Zhou neither discloses nor suggests applicant's receiver-specific messages "not containing said sensitive event-relevant information" recited in the independent claims 1 and 11 from which all other claims depend. Withdrawal of the rejection of claims of claims 1-4 and 7-20 under 35 U.S.C. §102(e) and allowance thereof are thus respectfully requested.

CLAIM REJECTION - 35 U.S.C. §103(a)

Claim 5, 6 which depend indirectly and directly, respectively, from claim 1 and therefore contain all the limitations thereof, patentably distinguish over the applied prior art in the same manner as claim 1.

Withdrawal of the rejection of claims 5 and 6 under 35 U.S.C. §103(a) and allowance thereof are thus respectfully requested.

CONCLUSION

In view of the above, each of the presently pending claims in this application is considered patentably differentiated over the prior art of record and believed to be in immediate conditions for allowance. Reconsideration and allowance of the present application are thus respectfully requested.

Reconsideration and allowance of the present application are respectfully requested.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully requested that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. If the Examiner feels that it might be

helpful in advancing this case by calling the undersigned, applicant would greatly appreciate such a telephone interview.

Respectfully submitted,

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